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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,448	02/20/2001	Allen Le Roy Limberg	SAMS:091	3754

7590

06/21/2005

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EXAMINER

NATNAEL, PAULO S M

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,448

Applicant(s)

LIMBERG ET AL.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **7-54** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims **7, 24,26,31,48, 50** the claimed phrases "a prescribed integral number M of contiguous ones of said data segments" and "a plurality of N in number of contiguous ones of said data segments", both refer to the data segments and it's unclear how the claims define the number of data frame headers, rendering the claims vague and indefinite.

In claims 24 and 48, the PN sequence is undefined, rendering the claim indefinite.

3. Claims **1-6** are allowed.
4. The following is an examiner's statement of reasons for allowance: the prior art fails to disclose the combination of the following data signal receiver for an electromagnetic wave signal including a pilot carrier and vestigial sideband modulation of a suppressed carrier of the same frequency and phase as said pilot carrier, said

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vestigial sideband modulation being in accordance with a baseband signal having a uniform symbol rate substantially 684 times the horizontal scan line rate of an NTSC television signal that is apt to accompany said electromagnetic wave signal as a co-channel interfering signal, said data signal receiver comprising: circuitry for selecting said electromagnetic wave signal, converting the frequencies of said electromagnetic wave signal after its selection, and amplifying said electromagnetic wave signal after its selection and conversion in frequency; circuitry for synchrodyning said electromagnetic wave signal to baseband after its selection, conversion in frequency and amplification and supplying digitized samples of a baseband signal resulting from synchrodyning said electromagnetic wave signal to baseband; an adaptive equalizer for receiving said samples of a baseband signal resulting from synchrodyning said electromagnetic wave signal to baseband, and supplying an equalizer response to those received samples as weighted by kernel weights that are electrically adjustable; circuitry for regenerating transmitted data from said equalizer response; a comb filter for differentially delaying said equalizer response, so said first ghost cancellation reference signal in the more delayed equalizer response occurs simultaneously with said second ghost-cancellation reference signal in the less delayed equalizer response, and subtractively combining said more delayed equalizer response and said less delayed equalizer response to generate a comb filter response; a computer responsive to selected portions of said comb filter response including the result of subtractively combining said first and second ghost-cancellation reference signals, for performing initial electrical adjustments of the kernel weights of said adaptive equalizer whenever said data signal receiver is initially

operated after a time of inoperation or whenever said electromagnetic wave signal is initially selected, as in claim 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 10:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paulos M. Natnael
Primary Examiner
Art Unit 2614

June 14, 2005